We claim:

1. A stretchable web comprising a top surface and a bottom surface, the web comprising one or more regions having a plurality of slits, wherein:

i. each slit connects the top surface to the bottom surface;

ii. the slits are aligned with their major axes oriented at an angle within 45° of a common direction on the web surface;

iii. the slits open when a tensile force is applied to the web along the common direction;

iv. the slits are characterized by a major and a minor axes, the ratio of the major to minor axes (the aspect ratio) being more than about 5; and

v. the stretchable web has a porosity of greater than about 1.0 ($m^3/m^2/min$) when stretched to 50% elongation.

2. The web of claim 1 wherein the slits are aligned each with their major axes oriented at an angle within 30° of a common direction on the web surface.

3. The web of claim 1 wherein the slits are aligned each with their major axes oriented at an angle within 15° of a common direction on the web surface.

4. The web of claim 1 wherein the slits are aligned each with their major axes essentially parallel to a common direction on the web surface.

5. The web of claim 1 wherein the ratio of the major axis to the minor axis of at least one of the plurality of slits is greater than about 25.

6. The web of claim 1 wherein the slits are positioned randomly within any one or more of said regions in the web.

7. The web of claim 1 wherein the arrangement of slits within any one or more of said regions is organized in an array, the array comprising rows of slits that are essentially parallel in their major axes.

8. The web of claim 7 wherein the array has a hexagonal symmetry such that the row offset value RO = SS/2, where SS is the relative slit separation.

9. The web of claim 7 wherein the array has a rectangular symmetry such that the row offset value RO = 0 (zero).

10. The web of claim 7 wherein the array has a staggered configuration such that the row offset value RO is not equal to SS/2, where SS is the relative slit separation.

11. The web of claim 7 wherein the value of the relative row separation of the array RS, is between about -0.9 and about 10.0.

12. The web of claim 7 wherein the relative row offset value of RO is less than about 0.5.

13. The web of claim 1 wherein the number density of slits per square inch within any one or more of the regions is between about 5 and about 1,000.

14. The web of claim 1 wherein the total length of slits per square inch within any one or more of the regions is between about 0.5 and about 50 inches/square inch.

15. An absorbent article comprising the web of claim 1.

16. A disposable diaper comprising the web of claim 1.

17. An elastic bandage comprising the web of claim 1.

18. An incontinence article comprising the web of claim 1.

19. A sanitary article comprising the web of claim 1.

20. A composite material comprising the web of claim 1 bonded to a secondary web.

21. The composite material of claim 20 wherein the secondary web comprises a nonwoven fabric.

22. The composite material of claim 20 wherein the webs are bonded either by vacuum lamination or by adhesive lamination.

23. The composite material of claim 20 wherein the secondary webs are nonwoven fabrics that are extensible in a common direction of the stretchable web.

24. An elastic web with a top surface and a bottom surface, said web comprising one or more regions having a multiplicity of slits, wherein:

i. each slit connects the top surface to the bottom surface;

ii. the slits are aligned with their major axes oriented at an angle within 45° of a common direction on the web surface;

iii. the slits open when a tensile force is applied to the web along the common direction;

iv. the slits are characterized by a major and a minor axes, the ratio of the major to minor axes (the aspect ratio) being more than about 5; and

v. the region has an open area of greater than 1% when stretched to 100% elongation.

25. The web of claim 24 wherein the slits are aligned each with their major axes oriented at an angle within 30° of a common direction on the web surface.

26. The web of claim 24 wherein the slits are aligned each with their major axes oriented at an angle within 15° of a common direction on the web surface.

27. The web of claim 24 wherein the slits are aligned each with their major axes essentially parallel to a common direction on the web surface.

28. The web of claim 24 wherein the ratio of the major axis to the minor axis (aspect ratio) of at least one of the plurality of slits is greater than about 25.

29. The web of claim 24 wherein the slits are positioned randomly within any one or more of said regions in the web.

30. The web of claim 24 wherein the arrangement of slits within any one or more of the regions is organized in an array, the array comprising rows of slits that are essentially parallel in their major axes.

31. The web of claim 30 wherein the array has a hexagonal symmetry such that the row offset value RO = SS/2, where SS is the relative slit separation.

32. The web of claim 30 wherein the array has a rectangular symmetry such that the row offset value RO = 0 (zero).

33. The web of claim 30 wherein the array has a staggered configuration such that the row offset value RO is not equal to SS/2, where SS is the relative slit separation.

34. The web of claim 30 wherein the value of the relative row separation of the array RS, is between about -0.9 and about 10.0.

35. The web of claim 30 wherein the relative row offset value of RO is less than 0.5.

36. The web of claim 24 wherein the number density of slits per square inch within any one or more of the regions is between about 5 and about 1,000.

37. The web of claim 24 wherein the total length of slits per square inch within any one or more of the regions is between about 0.5 and about 50 inches/square inch.

38. An absorbent article comprising the web of claim 24.

39. A disposable diaper comprising the web of claim 24.

40. An elastic bandage comprising the web of claim 24.

41. An incontinence article comprising the web of claim 24.

42. A sanitary article comprising the web of claim 24.

43. A composite material comprising the web of claim 24 bonded to a secondary web.

44. The composite material of claim 43 wherein the secondary web comprises a nonwoven fabric.

45. The composite material of claim 43 wherein the webs are bonded either by vacuum lamination or by adhesive lamination.

46. The composite material of claim 43 wherein the secondary webs are nonwoven fabrics that are extensible in a common direction of the stretchable web.

47. The web as claimed in claim 1, wherein the slit length is within the range of from about 0.25 to about 25 mm.

48. The web as claimed in claim 47, wherein the slit length is within the range of from about 2.5 to about 6.25 mm.

49. The web of claim 24, wherein the slit length is within the range of from about 0.25 to about 25 mm.

50. The web as claimed in claim 49, wherein the slit length is within the range of from about 2.5 to about 6.25 mm.